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Practitioner's Docket No.: 939_026

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of: Sugio MIYAZAWA and Michio ASAI

Serial No.: 09/857,540

Group Art Unit: 2879

Filed: October 12, 2000

Examiner: Dong, Dalei

Conf. No.: 6358

For: HIGH PRESSURE DISCHARGE LAMP AND ARC TUBE AND
METHOD OF PRODUCING THE SAME

M.S. Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

**CERTIFICATION OF FACSIMILE
TRANSMISSION**

I hereby certify that this paper is being facsimile
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Trademark Office on August 20, 2004.


Gina M. Husak

REQUEST FOR RECONSIDERATION

Sir:

In response to the Office Action mailed May 21, 2004, Applicants respectfully request reconsideration and withdrawal of the rejections of record based on the following arguments.

Claims 1-3 and 5 are pending herein. Applicants respectfully submit that all claims pending herein are in condition for allowance for the reasons explained below.

1. Claims 1-3 and 5 were rejected under §103(a) over Rhodes in view of Charles. Applicants respectfully traverse this rejection.

Independent claim 1 recites a discharge vessel or chamber for a high-intensity discharge lamp. The discharge vessel comprises a central body having a discharge space provided therein, two capillaries closing off respective end openings of the central body and an electrode positioned within each respective one of the capillaries. The central body and the capillaries comprise an alumina material or an alumina-based

ceramic material, and an average diameter of alumina grains in the capillaries is in a range of 10 μm to 25 μm .

The features of the discharge vessel or chamber for a high-intensity discharge lamp recited in independent claim 5 include the features recited in independent claim 1, and claim 5 further recites that the central body and the capillaries are simultaneously sintered.

The PTO admitted that Rhodes does not disclose "the average diameter of alumina grain [sic] in the capillaries is in a range of 10 μm to 25 μm " (Office Action, page 4, lines 20-21). Applicants respectfully submit, however, that Rhodes does not even disclose or suggest any capillary structure in the first place.

That is, the PTO asserted that Rhodes' sealing members 12, 13 and 13' correspond to capillaries made of alumina or an alumina-based ceramic material (Office Action, page 2, lines 16-17). Applicants respectfully submit, however, that Rhodes' Figs. 1-3 clearly show that the sealing members 12 and 13, 13' do not constitute or include any portions that would be considered a capillary structure by one of ordinary skill in the art.

Further, Applicants respectfully submit that while Rhodes' tube 11 can be polycrystalline alumina (PCA), there is still no disclosure or suggestion in Rhodes that the PCA tube itself includes a *capillary portion* closing off its respective end openings. In fact, Applicants respectfully submit that none of the alumina or ceramic structures disclosed in Rhodes constitute capillaries.

Moreover, Applicants respectfully submit that even the metal feedthrough 14 shown in Rhodes' Figs. 1-3 cannot be considered to be a capillary in the context of independent claims 1 and 5. That is, Rhodes' metal feedthrough is, in fact, a metal, preferably niobium (see Rhodes, Col. 5, lines 34-36, and lines 50-53, for example), whereas claims 1 and 5 call for alumina or alumina-based ceramic capillaries.

Not recognizing the absence of capillaries in Rhodes, however, the PTO applied Charles in order to overcome the admitted deficiency with respect to Rhodes' lack of disclosure regarding the grain size of alumina grains in the (undisclosed) capillaries. The PTO asserted that it would have been obvious to one of ordinary skill

in the art "to have manufacture [sic] the sealing member or capillaries of Rhodes with [sic, the] average grain size of Charles in order to renders [sic] the sintered discharge lamp with excellent optical properties while maintaining and improving the strength of the sintered discharge lamp" (Office Action, page 6, lines 18-21). Applicants respectfully submit that this is incorrect.

That is, Applicants respectfully submit that even if one of ordinary skill in the art had used the alumina material of Charles to form Rhodes' sealing members as the PTO suggested, the resulting envelope would still lack the capillary structure recited in independent claims 1 and 5 for the reasons explained above.

In addition, Applicants respectfully submit that if one of ordinary skill in the art had used Charles' materials to form Rhodes' sealing members, then the limitation recited in claim 2, which the PTO asserted was met by the material of Rhodes, would not be met by Charles' substitute material. That is, Applicants respectfully submit that there is no disclosure or suggestion in Charles that Charles' material contains 1.5 times more magnesium oxide, zirconium oxide, scandium oxide, lanthanum oxide, or a combination thereof than that which is present in Rhodes' tube 11.

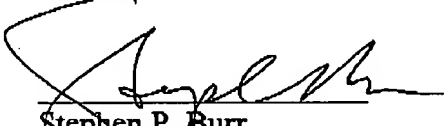
For at least the foregoing reasons, Applicants respectfully submit that all claims pending herein define patentable subject matter over the applied references. Accordingly, Applicants respectfully request that the above rejection be reconsidered and withdrawn.

Applicants respectfully request that the Examiner acknowledge receipt and consideration of the references cited in the Information Disclosure Statement filed on April 15, 2004.

If the Examiner believes that contact with Applicants' attorney would be advantageous toward the disposition of this case, the Examiner is herein requested to call Applicants' attorney at the phone number noted below.

The Commissioner is hereby authorized to charge any additional fees associated with this communication or credit any overpayment to Deposit Account No. 50-1446.

Respectfully submitted,


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August 20, 2004

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